

Application Serial No.: 10/623,243
Attorney Docket No.: 0140111

In the Claims:

Claim 1 (currently amended): An overmolded module comprising:

a surface mount component situated over a laminate circuit board, said surface mount component comprising a first terminal and a second terminal;

a first and a second pad situated on said laminate circuit board, said first pad being connected to said first terminal and said second pad being connected to said second terminal;

a solder mask trench situated underneath said surface mount component, wherein said solder mask trench is situated over a top surface of said laminate circuit board, wherein a solder mask uniformly covers said top surface of said laminate circuit board, and wherein said solder mask does not cover said solder mask trench;

wherein a bottom surface of said surface mount component and said top surface of said laminate circuit board form a moldable gap, said moldable gap including said solder mask trench, wherein said moldable gap and said solder mask trench facilitate a flow of a molding compound underneath said surface mount component, and wherein said solder mask trench is filled with said molding compound.

Claim 2 (canceled)

Application Serial No.: 10/623,243
Attorney Docket No.: 0140111

Claim 3 (previously presented): The overmolded module of claim 1 wherein said moldable gap is filled with said molding compound.

Claim 4 (original): The overmolded module of claim 1 further comprising an overmold, said overmold being situated over said surface mount component.

Claim 5 (original): The overmolded module of claim 1 wherein said surface mount component is selected from the group consisting of a resistor, a capacitor, an inductor, a diplexer, a diode, and a SAW filter.

Claim 6 (original): The overmolded module of claim 3 wherein said moldable gap has a height of between approximately 45.0 micrometers and 65.0 micrometers.

Claim 7 (original): The overmolded module of claim 1 wherein said overmolded module is an MCM.

Claim 8 (canceled)

Claim 9 (currently amended): An overmolded module comprising:
a surface mount component situated over a laminate circuit board, said surface mount component comprising a first terminal and a second terminal;

Application Serial No.: 10/623,243
Attorney Docket No.: 0140111

a first and a second pad situated on said laminate circuit board, said first pad being connected to said first terminal and said second pad being connected to said second terminal;

a moldable gap situated underneath said surface mount component, said moldable gap comprising a solder mask trench, wherein said solder mask trench is situated over a top surface of said laminate circuit board, wherein a solder mask uniformly covers said top surface of said laminate circuit board, and wherein said solder mask does not cover said solder mask trench, and wherein said moldable gap and said solder mask trench facilitate a flow of a molding compound underneath said surface mount component, and wherein said solder mask trench is filled with said molding compound.

Claim 10 (original): The overmolded module of claim 9 wherein said moldable gap is filled with said molding compound.

Claim 11 (original): The overmolded module of claim 9 further comprising an overmold, said overmold being situated over said surface mount component.

Claim 12 (original): The overmolded module of claim 11 wherein said overmold comprises said molding compound.

Application Serial No.: 10/623,243
Attorney Docket No.: 0140111

Claim 13 (original): The overmolded module of claim 9 wherein said moldable gap has a height of between approximately 45.0 micrometers and 65.0 micrometers.

Claim 14 (original): The overmolded module of claim 9 wherein said surface mount component is selected from the group consisting of a resistor, a capacitor, an inductor, a diplexer, a diode, and a SAW filter.

Claim 15 (original): The overmolded module of claim 9 wherein said overmolded module is an MCM.

Claim 16 (currently amended): An overmolded module comprising:

a surface mount device situated over a laminate circuit board, said surface mount device comprising a plurality of terminals;

a plurality of pads situated on said laminate circuit board, each of said plurality of pads being connected to a respective one of said plurality of terminals;

a solder mask trench situated underneath said surface mount device, wherein said solder mask trench is situated over a top surface of said laminate circuit board, wherein a solder mask uniformly covers said top surface of said laminate circuit board, and wherein said solder mask does not cover said solder mask trench, and wherein said solder mask trench facilitates a flow of a molding compound underneath said surface mount component, and wherein said solder mask trench is filled with said molding compound.

Application Serial No.: 10/623,243
Attorney Docket No.: 0140111

Claim 17 (canceled).

Claim 18 (original): The overmolded module of claim 16 wherein said surface mount device is a leadless surface mount device.

Claim 19 (original): The overmolded module of claim 16 wherein said surface mount device comprises at least one component, said at least one component being selected from the group consisting of an active component and a passive component.

Claim 20 (original): The overmolded module of claim 16 wherein said overmolded module is an MCM.